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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,277

04/18/2006

Tsukasa Fujieda

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EXAMINER

WALTERS JR, ROBERT S

ART UNIT

PAPER NUMBER

1792

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,277	<b>Applicant(s)</b> FUJIEDA, TSUKASA	
	<b>Examiner</b> ROBERT S. WALTERS JR	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Status of Application***

Claims 4 and 10 are cancelled. Claims 1-3, 5-9, 11 and 12 are pending and presented for examination.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-3, 5-9, 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Terminal Disclaimer***

The terminal disclaimer filed on 12/22/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Application No. 10/576193 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-3, 5-9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomioka (U.S. Pat. No. 5079030) in view of Carpenter (U.S. Pat. No. 5320673) and Takashi et al. (JP 2001-149857, a machine translation of the disclosure is provided) and Noritake et al. (JP 2003-117481, a machine translation of the disclosure is provided).

Regarding claims 1-3, 5-9, 11 and 12, Tomioka teaches a method of forming a luster coating film (see abstract) comprising the steps of:

- (1) applying an aqueous luster base coating composition to a substrate in three to five stages, such that the thickness of the base coating applied in each of the second and subsequent stages is between 0.3 to 5  $\mu\text{m}$  when cured (column 4, lines 19-32);
- (2) applying a clear coating composition over the uncured or heat-cured coating layer of the base coating composition (column 4, lines 38-40);
- (3) heating the two-layer coating comprising the base coating composition and the clear coat to obtain a cured two-layer coating film (column 4, lines 40-45).

Tomioka further teaches applying the base coating in the first stage to a thickness of 8 microns, wherein the solids content of the thermosetting base coating is 50-80% after the first stage.

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Tomioka further teaches the substrate that is being coated is an automotive body (abstract), and also therefore teaches an automotive body having a luster coating film formed by the method (abstract). Finally, Tomioka teaches allowing the coating to stand or preheating it between the first stage and the second stage (column 3, lines 50-62).

Tomioka however fails to explicitly teach the base coating and clear coating being a thermosetting coating, the aqueous base coating comprising the components as claimed in claims 2 and 8, and an additional step of applying a second clear coat layer above the first clear coat layer. Tomioka also fails to teach the base coating composition having a solids content of 15 %, the coating being allowed to stand or preheated between *each* coating stage, and the coating having at least 40 weight % solids content one minute after application in each stage.

Carpenter teaches a method of forming a luster coating using an aqueous luster base coat and a clear coat (column 16, lines 54-68). Carpenter teaches that both these coatings may be thermosetting compositions (column 16, lines 65-66) and that preferably the clear coat is applied in two layers (column 16, lines 60-63). Carpenter further teaches an aqueous (column 14, lines 52-56) luster thermosetting base coat composition comprising a water soluble or dispersible crosslinkable functional group-containing resin (column 14, lines 63-68), a crosslinking agent (column 15, lines 3-7), and a flaky luster pigment (column 13, lines 45-47 and column 14, lines 40-42) which has been surface modified. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method of forming a luster coating film by utilizing a thermosetting aqueous luster base coat comprising a water-soluble or dispersible resin, a crosslinking agent, and a flaky luster pigment, as well as applying a thermosetting clearcoat upon this layer either once or twice (to obtain a three-layer coating film) according to

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Carpenter. One would have been motivated to make these modifications as Carpenter teaches that his method provides coatings having an excellent appearance and physical properties (column 16, lines 66-68) and that the metallic flakes described are resistant to oxidation with minimal discoloration or diminution of the metallic effect, and provide superior dispersion in the waterborne composition and thus result in a coating with an enhanced metallic effect and improved color development (column 2, lines 31-43).

Takashi teaches forming a luster coating by forming a first metallic coating (the compositions similar to that of Carpenter, see 0008 and 0014) followed by a clear coat and then further applying a second metallic coating and a second clear coat layer followed by curing of all the coats (abstract). Takashi also teaches that the aqueous luster thermosetting base coating composition has a solids content of 14 weight % (0033 and 0035). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method by maintaining the solids content of the base coating composition to be about 5 to 15 weight %. One would have been motivated to make this modification as Takashi teaches that this can provide coatings free from metal unevenness and having an excellent flip-flop property (abstract). Furthermore, the selection of the solids content of the coating composition would impact both the coatability of the composition as well as the drying time required for the composition, therefore it would also have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed range through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

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Noritake teaches the importance of drying (by standing or heating, see 0019) an aqueous thermosetting base coating composition prior to applying any aqueous metallic pigment compositions thereon to a solids content of greater than 40 % (see abstract, 0008 and 0019). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method by allowing the base coating to stand or heating it after each coating stage, such that the solids content one minute after application is greater than at least 40 weight %. One would have been motivated to make this modification as Noritake teaches that this results in the metallic coating film having excellent orientation of the metallic pigment, as well as an excellent flip-flop property.

### ***Conclusion***

Claims 1-3, 5-9, 11 and 12 are pending.

Claims 1-3, 5-9, 11 and 12 are rejected.

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Friday, 8:00am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1792

/ROBERT S. WALTERS JR/  
April 9, 2009  
Examiner, Art Unit 1792



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